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ABSTRACT

This report evaluates Project Data-Tech, a New York City program that served 125 Haitian- and Spanish-speaking students of limited English proficiency and that was designed to improve the educational attainment of these minority children. Participating students received instruction in English as a second language; native language arts (NLA); the content areas of mathematics, science, and social studies; and computer-aided drafting and design. Project staff took courses at institutions of higher education and attended workshops on teaching content-area courses with bilingual and ESL methodologies. Parental involvement activities included project-conducted workshops and monthly activities and meetings of the Parent-Teacher Association, Parents' Advisory Council, and Bilingual Parents Advisory Council. Evaluation data show that the project met its objectives for ESL, NLA, content-area courses, attendance, career conference, staff development, and parental involvement. The project failed to meet its objective for curriculum development: a grant that had been awarded to the project for the purchase of equipment for a robotics class did not materialize, thus the proposed course was not offered. Appendices contain a list of instructional materials and class schedules. Recommendations conclude the report. (GLR)

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ED 372 169

OER Report

Project Data-Tech
Transitional Bilingual Education Grant T003A90193
FINAL EVALUATION REPORT
1992-93

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Project Data-Tech
Transitional Bilingual Education Grant T003A90193
FINAL EVALUATION REPORT
1992-93

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EXECUTIVE SUMMARY

Project Data-Tech was an Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded project in its fourth year of operation at Sarah J. Hale High School in Brooklyn.

Project Data-Tech served a total of 125 Haitian- and Spanish-speaking students of limited English proficiency (LEP), a decrease of 55 students from the previous year. These LEP students were predominantly newly arrived immigrants who had experienced gaps in their education or whose former education was inadequate for their age and needs.

Participating students received instruction in English as a second language (E.S.L.); native language arts (N.L.A.); the content areas of mathematics, science, and social studies; and computer-aided drafting and design (CAD).

Project staff took courses at institutions of higher education and attended workshops on teaching content area courses with bilingual and/or E.S.L. methodologies.

Parental involvement activities included project-conducted workshops, monthly activities and meetings of the Parent-Teacher Association (P.T.A.), Parents' Advisory Council (PAC), and the Bilingual Parents Advisory Council (BPAC).

Project Data-Tech met its objectives for E.S.L., N.L.A., content area courses, attendance, career conference, staff development, and parental involvement. The project failed to meet its objective for curriculum development; a grant which had been awarded to the project for the purchase of equipment for a robotics class did not materialize, and the project could not offer the proposed course.

The conclusions, based on the findings of this evaluation, lead to the following recommendation:

- Develop necessary Haitian-language materials for CAD and social studies instruction.

ACKNOWLEDGEMENTS

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I. INTRODUCTION

This report documents the Office of Research, Evaluation, and Assessment's (OREA's) 1992-93 evaluation of the Elementary and Secondary Education Act (E.S.E.A.) Title VII-funded program, Project Data-Tech.

PROJECT CONTEXT

The project in its fourth year, operated at Sarah J. Hale High School in south Brooklyn. The population of the surrounding community was mostly African-American and Latino. The population of the high school was similar. Of the 1,709 students registered in the school, 81 percent were African-American and 18 percent were Latino. Nine percent (190) were of limited English proficiency (LEP), and 60 percent came from low-income families as evidenced by their eligibility for the free-lunch program.

Sarah J. Hale High School is housed in an old building which was under renovation. Some classrooms were large, bright, and well ventilated, while others were in need of repair or carved out of space not meant for classrooms. There was little student work in evidence, although bulletin boards usually displayed pictures of and text about the honored students of the week/month. Halls were noisy and crowded and had numerous security personnel on constant patrol.

STUDENT CHARACTERISTICS

Project Data-Tech served a total of 125 LEP students in grades nine through twelve. (See Table 1.) LEP status was determined by Language Assessment Battery (LAB) scores at or below the 40th percentile. Male students numbered 60 (48 percent); female, 65 (52 percent).

TABLE 1

Number of Students in Project Data-Tech, by Grade

Grade	Number
9	11
10	37
11	41
12	36
TOTAL	125

Almost half of the project participants (48.8 percent) were born in Haiti. The remainder came from Spanish-speaking countries. (See Table 2 for countries of origin.) Almost all (96 percent) of the participants came from low-income families and were eligible for the free-lunch program.

TABLE 2

Students' Countries of Origin

Country	Number of Students
Haiti	61
Dominican Republic	36
Puerto Rico	7
Mexico	4
Ecuador	3
El Salvador	3
Colombia	2
Honduras	2
Nicaragua	2
Panama	2
Venezuela	1
Total	125

Needs Assessment

Sarah J. Hale High School had a large number of LEP students from feeder schools as well as new immigrant students from Haiti and the Dominican Republic who had never attended a bilingual program. These students needed instruction in English as a second language (E.S.L.) and native language arts (N.L.A.) as well as supportive and supplemental services to help them to make the transition to American mainstream society.

PROJECT OBJECTIVES

Student Objectives

- As a result of participating in the program the target students will demonstrate an appropriate increase in English language proficiency as indicated by statistically significant gains at the .05 level on the Language Assessment Battery (LAB) or the Degrees of Reading Power (D.R.P.) test.

- At least 70 percent of the participating students will show significant gains in native language arts (N.L.A.) as indicated by final course grades.

- At least 70 percent of students enrolled in mathematics, social studies, science, and computer skills will score at or above the passing criterion of 65 on their final course grades.

- The project will organize at least one conference for students in which representatives of business and technology will present information on Computer-aided Drafting and Design (CAD) and skill requirements, as indicated by program records.

- As a result of participating in the program, students' attendance will be significantly higher than that of mainstream students as indicated by school attendance records.

Staff Development Objectives

- Program staff will participate in teacher-training conferences and workshops as indicated by project records and teacher interviews.

- Some members of the project staff will enroll in at least one university course each semester as shown by college course registration records.

Curriculum Development Objective

- The project will offer twelfth graders the advanced techniques of CAD by introducing a unit on robotics.

Parental Involvement Objective

- The program will offer workshops for parents of the target population as indicated by program and school activity records.

PROJECT IMPLEMENTATION

During the 1992-93 school year, Project Data-Tech provided instructional and support services to 125 Haitian- or Spanish-speaking students and their families. The project's main goal was to increase English proficiency while developing knowledge in the content areas of mathematics, science, and social studies, with special emphasis on the career area of computer-aided drafting and design (CAD). Project Data-Tech provided support services to students, including N.L.A. tutoring before and after school. The project provided parental involvement and staff development activities.

Materials, Method, and Techniques

Teachers of Project Data-Tech students used a wide array of strategies and techniques, including student presentations, the whole language approach, and poetry and story readings by teachers and students. Content area classes were

taught almost exclusively in Haitian or Spanish at the lower levels, with a greater emphasis on English in advanced courses as students' language proficiency increased. The project also provided speakers and presentations on multicultural subjects, food festivals, trips to places of cultural interest, before- and after-school tutoring in N.L.A. and mathematics, and opportunities for students to become involved in community service.

The project director reported that there was a shortage of Haitian-language materials for social studies (particularly units in global studies, American studies, and economics) and CAD.

For a list of instructional materials used in the project, please see Appendix A.

Capacity Building

Project Data-Tech planned to use tax-levy funds to serve project students when Title VII funding ended in 1994.

Staff Qualifications

Title VII staff. The project's Title VII staff included the project director and a computer specialist. For a description of degrees held and language proficiencies (teaching or communicative*), see Table 3.

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*Teaching proficiency (TP) is defined as the ability to use LEP students' native language in teaching language arts or other academic subjects. Communicative proficiency (CP) is defined as the ability to have conversational capability in LEP students' native language.

TABLE 3

Qualifications of Project Staff

Position Title	Degree(s)	Language Competence
Project Director	M.S., P.D.	Spanish/French (TP)
Computer Specialist	M.S.	Haitian/French (TP)

The project director's responsibilities included supervising and coordinating the project's activities, maintaining project records, administering tests and collecting information needed for the evaluation. The computer specialist's responsibilities included designing examinations in CAD, supervising the CAD resource room, and teaching courses.

Other staff. Tax-levy funds, Chapter 1, and Pupils with Compensatory Educational Needs (P.C.E.N.)/E.S.L., paid the salaries of 12 classroom teachers, a trilingual (French, Spanish, English) guidance counselor, and two paraprofessionals. All teachers held high school certification for the subject area they taught. For a description of their degrees, certifications, and language competencies, see Table 4.

Staff development. Teachers received tuition assistance toward coursework in E.S.L. or bilingual education. Two teachers completed eight credits each at various City University of New York (CUNY) institutions. Four teachers attended two workshops organized by Hunter College on teaching mathematics and science to bilingual students, and another four attended a workshop on teaching content area subjects to LEP students.

TABLE 4

Qualifications Non-Title VII Staff

Position Title	Degree(s)	Certificate(s)/ Licenses	Language Competence
Guidance Counselor	Master's	Guidance	Spanish (CP), Haitian (CP), French (CP)
12 Teachers	10 Master's 2 Not Reptd.	4 E.S.L. 2 French 1 Science 1 Mathematics 2 Social Studies 1 Spanish 1 Industrial Arts	2 French (TP) 3 French (CP), Haitian (CP) 1 French (CP), Haitian (CP), Spanish (CP) 3 Spanish (CP) 1 Spanish (TP) 2 Not reported
2 Paraprofessionals	2 High School	N/A	1 Spanish (CP)

Instructional Time Spent on Particular Tasks

See Appendix B for examples of class schedules.

Length of Time Participants Received Instruction

Students had a mean of 8.4 years (s.d.= 0.) of education in a non-English-speaking school system and 1.6 years (s.d. = 1.2) of education in the United States. The median time students participated in Project Data-Tech was 15 months.

Activities to Improve Pre-referral Evaluation Process

Students who seemed in need of special education services were referred to the school's guidance team. Students who were having difficulty in classes received remedial instruction in N.L.A. and certain content area courses either before or after school hours.

Students who were considered gifted and talented were placed in honors classes and followed closely by a teacher and a paraprofessional. If they were eleventh graders, they were referred to the Opportunity to Learn Program. In this program, students participated in E.S.L./computer classes at either Brooklyn College or Columbia University and were given counseling to help them realize their potential. These students were given full scholarships by the Opportunity to Learn Program to attend summer classes.

PARENT AND COMMUNITY INVOLVEMENT ACTIVITIES

The project sponsored a variety of parental involvement activities. Workshops focused on three areas: making parents aware of school operations and requirements; providing information on the social services available from federal, state, and city organizations; and teaching the survival skills needed to function well in this country. The project offered a Bilingual Parents' Advisory Council (BPAC) and also encouraged project parents to attend mainstream parental activities, including meetings of the BPAC and the Parent-Teachers Association (P.T.A.).

II. EVALUATION METHODOLOGY

EVALUATION DESIGN

Project Group's Educational Progress as Compared to That of an Appropriate Non-Project Group

OREA used a gap reduction design to evaluate the effect of language instruction on project students' performance on standardized tests. Because of the difficulty in finding a valid comparison group, OREA used instead the groups on which the tests were normed. Test scores are reported in Normal Curve Equivalents (N.C.E.s), which are normalized standard scores with a mean of 50 and a standard deviation of 21.1. It is assumed that the norm group has a zero gain in N.C.E.s in the absence of supplementary instruction and that participating students' gains are attributable to project services.

Applicability of Conclusions to All Persons Served by Project

Data were collected from all participating students for whom there were pre- and posttest scores. (There were no pretest data on students who entered the program late; therefore, posttest data for them will serve as pretest data for the following year.) Instruments used to measure educational progress were appropriate for the students involved. The LAB is used throughout New York City to assess the growth of English skills in populations similar to those served by Project Data-Tech.

INSTRUMENTS OF MEASUREMENT

OREA compared pre- and posttest scores on the LAB to assess the E.S.L. objective. The N.L.A. objective and the content area objective in mathematics,

science, and social studies were assessed through final course grades, as specified in the project objectives. All students were tested at the appropriate grade level. The language of the LAB was determined by the test itself.

According to the publishers' test manuals, all standardized tests used to gauge project students' progress are valid and reliable. Evidence supporting both content and construct validity is available for the LAB. Content validity is confirmed by an item-objective match and includes grade-by-grade item difficulties, correlations between subtests, and the relationship between the performance of students who are native speakers of English and students who are LEP. To support reliability, the Kuder-Richardson Formula 20 (KR20) coefficients and standard errors of measurement (SEM) are reported by grade and by form for each subtest and total test. Grade reliability coefficients, based on the performance of LEP students on the English version, ranged from .88 to .96 for individual subtests and from .95 to .98 for the total test.

DATA COLLECTION AND ANALYSIS

Data Collection

To gather qualitative data, an OREA evaluation consultant carried out on-site and telephone interviews with the project director several times during the school year and also observed two classes at each site. OREA reviewed project records to assess the objectives for attendance, career advisement, staff development, the ongoing education of teachers, curriculum development, and parent involvement. The project evaluator collected the data and prepared the final evaluation report in

accordance with the New York State E.S.E.A. Title VII Bilingual Education Final Evaluation Report format, which was adapted from a checklist developed by the staff of the Evaluation Assistance Center (EAC) East in consultation with the Office of Bilingual Education and Minority Language Affairs (OBEMLA).

Proper Administration of Instruments

Qualified personnel received training in testing procedures and administered the tests. Test administrators followed guidelines set forth in the manuals accompanying standardized tests. Time limits for subtests were adhered to; directions were given exactly as presented in the manual.

Testing at Twelve-Month Intervals

Standardized tests were given at 12-month intervals, following published norming dates.

Data Analysis

Accurate scoring and transcription of results. Scoring, score conversions, and data processing were accomplished electronically by the Scan Center of the Board of Education of the City of New York. Data provided by the Scan Center were analyzed in the Bilingual, Multicultural, and Early Childhood Evaluation Unit of OREA. Data collectors, processors, and analysts were unbiased and had no vested interest in the success of the project.

To assess the significance of students' achievement in English, OREA computed a correlated *t*-test on the LAB N.C.E. scores. The *t*-test determined whether the difference between the pre- and posttest scores was significantly greater

than would be expected from chance variation alone.

The only possible threat to the validity of any of the above instruments might be that LAB norms were based on the performance of English Proficient (EP) rather than LEP students. Since OREA was examining gains, however, this threat was inconsequential—the choice of norming groups should not affect the existence of gains.

III. FINDINGS

PARTICIPANTS' EDUCATIONAL PROGRESS

Project Data-Tech carried out all of the instructional activities specified in its original design.

Participants' Progress in English

Throughout the school year, students had ample opportunity to improve and develop their English language skills.

In one E.S.L. class observed by an OREA evaluation consultant, the audiolingual method was used to teach a lesson on the present continuous tense. The teacher reviewed the grammar, discussed its function, and asked the students to use this tense in sentences written on the blackboard. She gave students time to complete the task and then had students come to the board and write the answers. The class then reviewed the answers. The paraprofessional walked around the class assisting students who had individual questions.

In another E.S.L. class observed by the evaluation consultant, the students made speeches on topics the teacher had previously assigned. Some of the topics included: "Why I Love My Mother/Father," "Problems in the World Today," and "What I Want to Be."

The evaluation objective for English as a Second Language was:

- As a result of participating in the program, the target students will demonstrate an appropriate increase in English language proficiency as indicated by statistically significant gains at the .05 level on the Language Assessment Battery (LAB) or the Degrees of Reading Power (D.R.P.) test.

OREA used LAB results to assess this objective. There were complete pre- and posttest scores on the LAB for 65 students from grades nine through twelve. (See Table 5.) The average gain of 3.3 N.C.E.s (s.d.=7.8) was statistically significant, although, it was less than the previous year's 7.5 N.C.E.s.

The project met its objective for E.S.L. In the previous year, the project did not meet the E.S.L. objective, which proposed that 85 percent of the students would show significant improvement— an unrealistic goal that was changed in the year under review.

Participants' Progress in Native Language Arts

The evaluation objective for N.L.A. was:

- At least 70 percent of the participating students will show significant gains in Native Language Arts (N.L.A.) as indicated by final course grades.

N.L.A. classes were offered at beginning to advanced levels in both Spanish and Haitian. Some Spanish N.L.A. classes were combined because of low enrollment. All students at all levels for whom data were available passed their N.L.A. classes. (See Table 6.)

Project Data-Tech met its N.L.A. objective, as it did last year.

TABLE 5

Pretest/Posttest N.C.E. Differences on the
Language Assessment Battery, by Grade

Grade	Total number of project students	Number of students for whom data were available	Pretest		Posttest		Difference		*t* value
			Mean	S.D.	Mean	S.D.	Mean	S.D.	
9	11	4	1.0	0	2.5	3.0	1.5	3.0	1.00
10	37	22	9.7	9.9	12.2	10.6	2.5	8.3	1.44
11	41	26	9.3	9.7	11.5	13.2	2.3	7.2	1.61
12	36	13	13.2	14.2	20.5	20.3	7.3	8.4	3.16*
Total	125	65	9.7	10.7	13.0	14.2	3.3	7.8	3.45*

*$p < .05$

- Project Data-Tech students in grade twelve and overall made significant increases on the LAB.

TABLE 6

Final Grades in Native Language Arts, by Language

Language	Fall		Spring	
	Number Enrolled	Percent Passing	Number Enrolled	Percent Passing
Haitian	38	100.0	40	100.0
Spanish	44	100.0	48	100.0

- All students passed their N.L.A. classes in both target languages in both semesters.

LEP Participants' Academic Achievement

Content area classes were taught bilingually or with an E.S.L. approach that reinforced key concepts in the students' native language as an aid to comprehension.

An OREA consultant observed a bilingual (Haitian) content area class in mathematics that was learning about plotting points on a graph. The teacher first reviewed the formula needed to complete the computation and provided many examples. He attempted to get students to visualize what they were trying to do. He assigned three problems for the students to do at their seats, then reviewed the problems on the board and explained them step by step. He helped students understand key concepts by using Haitian when needed.

A second content area class observed by the OREA consultant was in social studies. The class was taught bilingually in Haitian. The teacher reviewed a Regents examination sample test. The students then did an assignment involving map skills and their interpretation of a cartoon related to World War II. The teacher used Haitian

to explain the more difficult concepts. The class ended with the teacher explaining general requirements for the Regents examination and the homework assignment for the day.

The content area objective was:

- At least seventy percent of the students enrolled in mathematics, social studies, science, and computer skills will score at or above the passing criterion of 65 on their final course grades.

In all content areas and at all grade levels, all students received passing grades. (See Table 7.)

Project Data-Tech met its objective for content area subjects, as it had in the previous year.

TABLE 7

Final Grades in Content Area Courses, by Subject

Subject	Fall 1992		Spring 1993	
	Number of students for whom data were reported	Percent Passing	Number of students for whom data were reported	Percent Passing
Mathematics	104	100.0	111	100.0
Science	90	100.0	97	100.0
Social Studies	101	100.0	109	100.0
Computer Skills	11	100.0	9	100.0

- All students passed all their content area courses in both the fall and the spring.

Career Conference

The project proposed one objective for a CAD conference:

- The project will organize at least one conference for students in which representatives of business and technology will present information on Computer-aided Drafting and Design (CAD) and skill requirements, as indicated by program records.

The project sponsored two career conferences in the spring, one after school and one in the evening, so parents could attend. Representatives from business corporations such as Xerox, I.B.M., and General Motors provided the students with information about the practical uses of CAD. Additionally, representatives from various colleges provided information about courses offered on CAD.

The project met its CAD conference objective.

FORMER PARTICIPANTS' PROGRESS IN ENGLISH LANGUAGE CLASSROOMS

The project did not mainstream any students in the year previous to the one under review.

OVERALL EDUCATIONAL PROGRESS ACHIEVED THROUGH PROJECT

Grade Retention

Project Data-Tech did not propose any objectives for grade retention. Five participating students (4.0 percent) were retained in grade. This represented an increase over last year, when 2 students (1.1 percent) were retained in grade.

Dropout Prevention

Project Data-Tech did not propose an objective for dropout prevention.

One project student (0.8 percent) dropped out of school. None had dropped out in the previous year.

Attendance

The project had one attendance objective:

- As a result of participating in the program, students' attendance will be significantly higher than that of mainstream students as indicated on school attendance records.

The attendance rate for mainstream students was 80 percent. The attendance rate for Project Data-Tech students was significantly better ($p<.05$) at 97.0 percent. This was also one percent better than it was in the previous year.

The project met its attendance objective, as it had in the previous year.

Placement in Gifted and Talented Programs

The project did not propose an objective in this area.

This year, seven project students (6 percent) were placed in the Opportunity to Learn Program for gifted and talented students, where they received counseling and were offered job placement opportunities or further academic studies in E.S.L. and computers. In the previous year, no project students were placed in gifted and talented programs.

Enrollment in Post-Secondary Institutions

This year, Project Data-Tech did not propose an objective in this area. Twenty-nine graduating students applied for enrollment in post-secondary institutions as compared to 11 in the previous year.

CASE HISTORY

B. came to the United States from Haiti with his parents and two brothers. When he first entered Sarah J. Hale High School, he knew no English. He enrolled in Project Data-Tech, learned English, became an honor student, and was selected

for the Opportunity to Learn Program. B. was a candidate for the Bilingual Medal of Honor. He hoped to continue his studies after graduation in 1993 and become a doctor.

STAFF DEVELOPMENT OUTCOMES

Project Data-Tech proposed two objectives for staff development:

- Program staff will participate in teacher-training conferences and workshops as indicated by the project records and teacher interviews.

Four teachers and program staff attended two workshops offered at Hunter College on the use of E.S.L. and bilingual approaches in teaching content area subjects to LEP students.

- Some members of the program staff will enroll in at least one university course each semester as indicated by college course registration records.

Two project staff members completed eight credits each at City University of New York (CUNY) colleges. A paraprofessional received her bachelor's degree in June 1993.

The project met both its staff development objectives. Last year, Project Data-Tech proposed one objective for staff development, which it met.

CURRICULUM DEVELOPMENT OUTCOMES

The project proposed one curriculum development objective:

- The project will offer twelfth graders the advanced techniques of CAD by introducing a unit on robotics.

All project students in all grades received instruction in CAD. The project did not develop the unit on robotics because an expected grant did not materialize.

The project did not meet its curriculum development objective. Last year's curriculum development objective, which required the staff to revise certain courses of study, was met.

PARENTAL INVOLVEMENT OUTCOMES

Project Data-Tech proposed one parental involvement objective:

- The project will offer workshops for parents of the target population as indicated by program and school activity records.

The project offered a total of six workshops to parents. The workshops focused on familiarizing parents with school requirements, various social programs (food stamps, medical assistance, etc.), and basic survival skills.

Project staff also encouraged parents to attend mainstream parental activities such as P.T.A., PAC, and BPAC meetings.

Project Data-Tech met its parental involvement objective. OREA was unable to evaluate the parent involvement objective in the previous year, since the project did not provide the necessary data to determine whether the parents of project students had a higher attendance rate at school functions than parents of mainstream students.

IV. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

ACHIEVEMENT OF OBJECTIVES

Project Data-Tech met its objectives for E.S.L., N.L.A., content area courses, career conference, attendance, staff development, and parental involvement. The project did not meet its objective for curriculum development because an expected grant for the purchase of robotics equipment did not materialize.

Participating students in Project Data-Tech showed academic progress in E.S.L., N.L.A., and the content areas. Of the 125 participating students, 120 were promoted to the next grade or graduated.

Project services not only benefited the students academically but also increased their awareness of the importance of education: the attendance rate of participating students was significantly higher than that of the mainstream population.

MOST AND LEAST EFFECTIVE COMPONENTS

The project director reported that the project's ability to offer courses in Haitian and Spanish and the availability of a multilingual guidance counselor were the programs richest assets. Less effective was the fact that the project lacked necessary Haitian-language CAD and social studies materials.

RECOMMENDATIONS TO ENHANCE PROJECT EFFECTIVENESS

- Develop necessary Haitian-language materials for CAD and social studies instruction.

APPENDIX A

Instructional Materials

English as a Second Language

Level	Title*
Basic	Turning Points (Workbooks and Books I & II)
	English Step by Step
	Everyday E.S.L. I & II
	Elementary Composition Practice
	Learning E.S.L.
	Lado English Series I & II
Intermediate	English for a Changing World
	Sequential Photographs
	Intermediate Composition Practice
	International Folk Tales
	Everyday English
	Main Idea
	English Survival Series
Advanced	Frankenstein
	Turning Points 4
	Exercises in Comprehension and Composition
	Americana
	USA - the Land and the People
Transitional	Achieving Competence in Reading and Writing
	Graded Exercises
	Lado English Series - Book 6
	International Folktales I
	Writing - the Business Letter
	Writing - the Composition
	Writing - the Report
	Practice for Reading Competency Test in Reading

* Author, publisher, and date of publication not submitted.

APPENDIX A

Instructional Materials, cont'd.

Native Language Arts

Language	Grade	Title	Author	Publisher*	Date of Publication *
Spanish	*	*	*	*	*
Haitian	*	Premiére Livre	Blume	*	*
Haitian	*	Quatriéme Livre	*	*	*
Haitian	*	Lecture Classique	*	*	*
Haitian	*	Cours Superieur	Blume	*	*
Haitian	*	Histoire di la Literature Haitienne	*	*	*

* Information not submitted.

Mathematics

Language	Grade	Title	Author	Publisher	Date of Publication
Spanish	9	Repaso Matematico	Stein	Allyn/Bacon	*
*	10	Matematicas	*	Silver/ Burdett	*
Haitian	*	*	Board of Education	Board of Education	*

* Information not submitted.

APPENDIX A

Instructional Materials, cont'd.

Science

Language	Grade	Title	Author	Publisher	Date of Publication
Spanish	9	Ciencias de Holt	*	*	*
*	10	Introducción a las Ciencias Biologicas	Ira Freeman	Díaz-Cubero	*
*	11	Biologia	Garcia	Minerva	*
*	11	Biologia	Alessio	Silver/ Burdett	*
Haitian	*	*	Board of Education	Board of Education	*

* Information not submitted.

Social Studies

Language	Grade	Title	Author	Publisher	Date of Publication
Spanish	9 & 10	Africa, Asia, Japon, China, India, America Latina	*	Barron's Educational Series	*
*	11	Libro de Historia Americana	*	Lectorum	*
Haitian	*	*	Board of Education	Board of Education	*

* Information not submitted.

APPENDIX B

Class Schedules

Ninth Grade

Days	Period	Subject
M-F	7:36 - 8:16	Extra Help (as needed)
M-F	8:20 - 9:01	E.S.L.
M-F	9:05 - 9:46	E.S.L.
M-F	9:50 - 10:02	Homeroom
M-F	10:06 - 10:47	Physical Education
M-F	10:51 - 11:32	Social Studies
M-F	11:36 - 12:17	Lunch
M-F	12:21 - 1:02	Mathematics
M-F	1:06 - 1:47	N.L.A.
M-F	1:51 - 2:32	Introduction to CAD

Eleventh Grade

Days	Period	Subject
M-F	7:36 - 8:16	Extra Help (as needed)
M-F	8:20 - 9:01	N.L.A.
M-F	9:05 - 9:46	Physical Education
M-F	9:50 - 10:02	Homeroom
M-F	10:06 - 10:47	E.S.L.
M-F	10:51 - 11:32	Social Studies
M-F	11:36 - 12:17	Lunch
M-F	12:21 - 1:02	Science
M-F	1:06 - 1:47	Mathematics
M-F	1:51 - 2:32	CAD